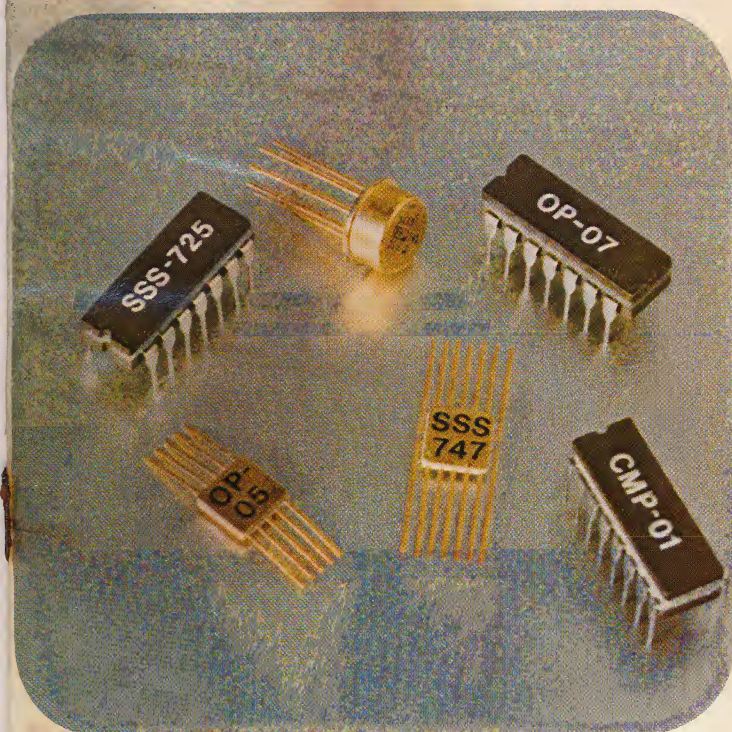
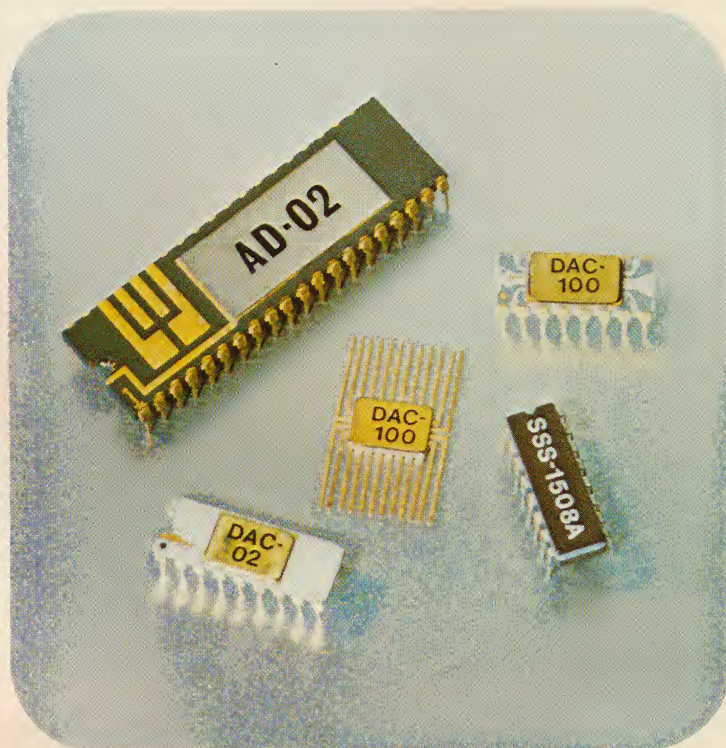


Precision Monolithics Condensed Catalog Winter-Spring, 1976



Apr 77

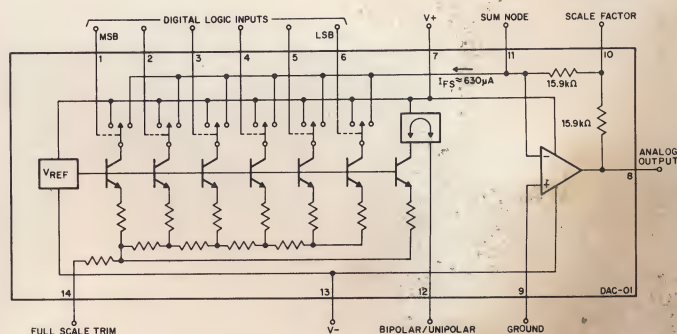


Linear and Conversion Products

DAC-01 — 6 BIT COMPLETE DAC

COMPACT, EASY-TO-USE D/A CONVERTER

- INCLUDES REFERENCE AND OP AMP
- 7 BIT ACCURACY $\pm 1/4$ LSB NONLINEARITY
- 3 MICROSECOND SETTLING TIME
- -55° TO $+125^{\circ}$ C and 0° TO 70° MODELS
- STANDARD SUPPLIES ± 12 V TO ± 18 V
- PIN-SELECTED OUTPUTS $+10$ V, ± 10 V, ± 5 V
- COMPACT 14 PIN DIP



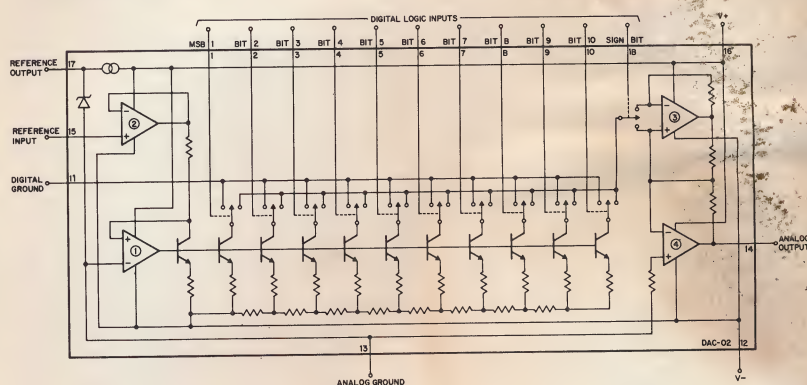
ORDERING INFORMATION

Model	Package	Temp Range (°C)	Max Nonlinearity Over Temp (%)	Max Full Scale Tempco (ppm/°C)	Bipolar Output Option
	14 Pin Hermetic DIP				
DAC-01A	Y	$-55/+125$	± 0.30	40	Yes
DAC-01	Y	$-55/+125$	± 0.45	80	Yes
DAC-01B	Y	$-55/+125$	± 0.45	120	Yes
DAC-01F	Y	$-55/+125$	± 0.45	80	No
DAC-01C	Y	$0/+70$	± 0.45	160	Yes
DAC-01H	Y	$0/+70$	± 0.45	160	No

DAC-02 — 10 BIT PLUS SIGN D/A CONVERTER

SIGN/MAGNITUDE DIGITAL CODING

- COMPLETE WITH REFERENCE AND OP AMP
- FAST 1.5μ sec SETTLING TIME
- BIPOLAR OUTPUTS ± 10 V, ± 5 V
- MONOTONICITY GUARANTEED OVER 0° TO 70° C
- STABLE 60 PPM/°C MAX FS TEMP CO
- STANDARD SUPPLIES ± 12 V TO ± 18 V SUPPLIES
- COMPACT 18 PIN DIP PACKAGE



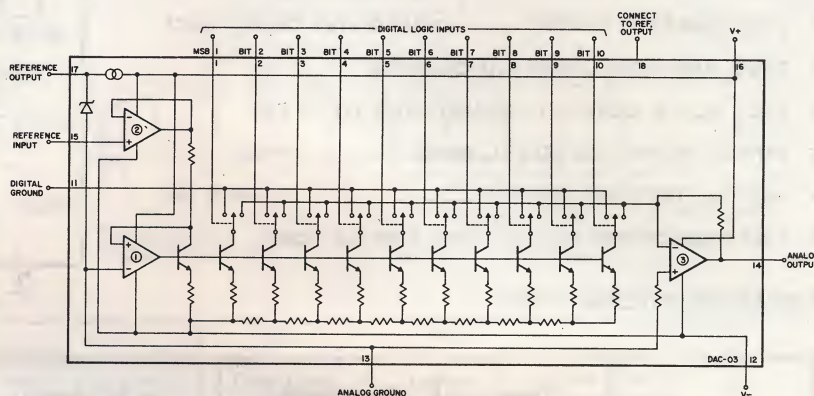
ORDERING INFORMATION

Model	Output Voltage Option Suffix		Resolution (Bits)	Monotonicity (0° to 70° C) (Bits)	Max Nonlinearity (0° to 70° C)	Max Full Scale Tempco (ppm/°C)
	± 10 V	± 5 V				
DAC-02AC	X1	X2	10 + Sign	10	$\pm 0.1\%$	60
DAC-02BC	X1	X2	10 + Sign	9	$\pm 0.1\%$	60
DAC-02CC	X1	X2	10 + Sign	8	$\pm 0.2\%$	60
DAC-02DD	X1	X2	10 + Sign	7	$\pm 0.4\%$	150

DAC-03 — 8 & 10 BIT LOW COST D/A CONVERTER

LOWEST COST COMPLETE MONOLITHIC DAC

- COMPLETE WITH REFERENCE AND OP AMP
- UNIPOLAR OUTPUTS +10V, +5V MODELS
- FAST 1.5 μ sec SETTLING TIME
- TTL, DTL, CMOS COMPATIBLE LOGIC LEVELS
- STANDARD POWER SUPPLIES $\pm 12V$ TO $\pm 18V$
- LOW POWER CONSUMPTION 350mW MAX
- COMPACT 18 PIN DIP PACKAGE



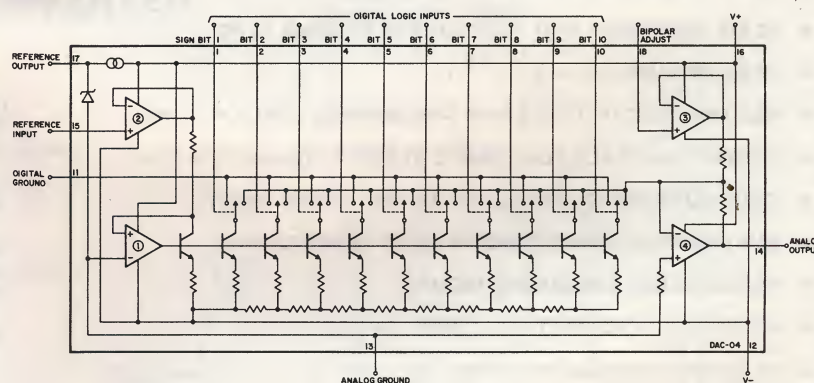
ORDERING INFORMATION

Model	Output Voltage Option Suffix		Resolution (Bits)	Monotonicity (Bits)	Max Nonlinearity @ 25°C (%)	Logic Input Current (μ A)
	+10V	+5V				
DAC-03AD	X1	X2	10	10	± 0.1	1
DAC-03BD	X1	X2	10	9	± 0.1	1
DAC-03CD	X1	X2	10	8	± 0.2	1
DAC-03DD	X1	X2	10	7	± 0.4	1

DAC-04 — 10 BIT TWO'S COMPLEMENT DAC

TWO'S COMPLEMENT DIGITAL CODING

- COMPLETE WITH REFERENCE AND OP AMP
- FAST 1.5 μ sec SETTLING TIME
- MONOTONICITY GUARANTEED OVER 0° TO 70°C
- STABLE 90PPM/°C MAX FS TEMPCO
- STANDARD SUPPLIES $\pm 12V$ TO $\pm 18V$
- LOW POWER CONSUMPTION 300mW MAX
- COMPACT 18 PIN DIP PACKAGE



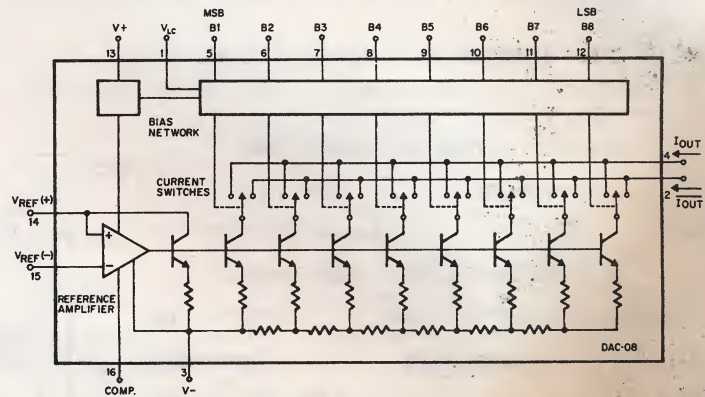
ORDERING INFORMATION

Model	Resolution (Bits)	Monotonicity (0° to 70°C) (Bits)	Max Nonlinearity (0° to 70°C)	Max Full Scale Tempco (ppm/°C)	Output Voltage (V)
DAC-04-ACX2	10	10	$\pm 0.1\%$	90	± 5
DAC-04-BCX2	10	9	$\pm 0.1\%$	90	± 5
DAC-04-CCX2	10	8	$\pm 0.2\%$	90	± 5
DAC-04-DDX2	10	7	$\pm 0.4\%$	150	± 5

DAC-08 — 8 BIT HIGH SPEED LOW COST MULTIPLYING DAC

FASTEST, MOST FLEXIBLE MONOLITHIC DAC MADE!

- VERY FAST SETTLING 85nsec SETTLING TIME
- TRUE CURRENT OUTPUT . . . -10V TO +18V COMPLIANCE
- TRUE AND COMPLEMENTED OUTPUTS
- FULL SCALE CURRENT PREMATCHED TO ± 1 LSB
- DIRECT INTERFACE TO TTL, CMOS, ECL, HTL, PMOS
- $\pm 4.5V$ to $\pm 18V$ SUPPLIES 33mW @ $\pm 5V$
- 2 OR 4 QUADRANT MULTIPLYING APPLICATIONS



ORDERING INFORMATION

Model	Temp Range (°C)	Monotonicity Over Temp (Bits)	Max Nonlinearity Over Temp (%)	Settling Time To $\pm 1/2$ LSB (nsec)	Package
DAC-08AQ	-55/+125	8	± 0.1	85	All DAC-08 devices are packaged in a hermetic 16 pin DIP
DAC-08Q	-55/+125	8	± 0.19	100	
DAC-08EQ	0/+70	8	± 0.19	100	
DAC-08CQ	0/+70	8	± 0.39	100	

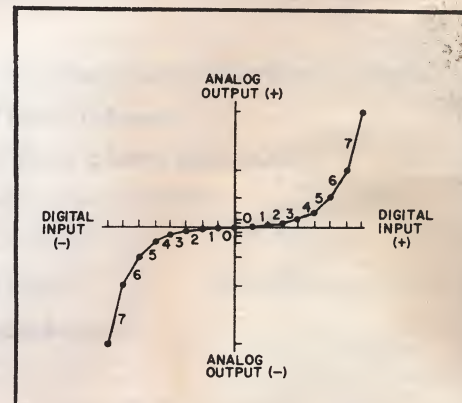
DAC-76 COMPANDING D/A CONVERTER

WIDE DYNAMIC RANGE DAC WITH EXPONENTIAL OUTPUT

IDEAL FOR 8 BIT μ PROCESSOR AND TRANSDUCER INTERFACES, PCM TELEMETRY, PROCESS CONTROLLERS AND AUDIO APPLICATIONS

- 12 BIT + SIGN RANGE WITH 7 BIT + SIGN CODING
- 12 BIT ACCURACY AND RESOLUTION AROUND ZERO
- 72 dB DYNAMIC RANGE ($\approx 2^{12}:1$)
- MULTIPLEXED OUTPUTS FOR TIME SHARED APPLICATIONS
- TIGHT FULL SCALE TOLERANCE ELIMINATES CALIBRATION
- TRUE CURRENT OUTPUTS: -5V TO +18V COMPLIANCE
- GUARANTEED MONOTONICITY OVER TEMPERATURE
- MULTIPLYING REFERENCE INPUTS
- MOS/BIPOLAR COMPATIBLE LOGIC INPUTS
- 18 PIN DUAL IN LINE PACKAGE

TRANSFER CHARACTERISTIC



ORDERING INFORMATION

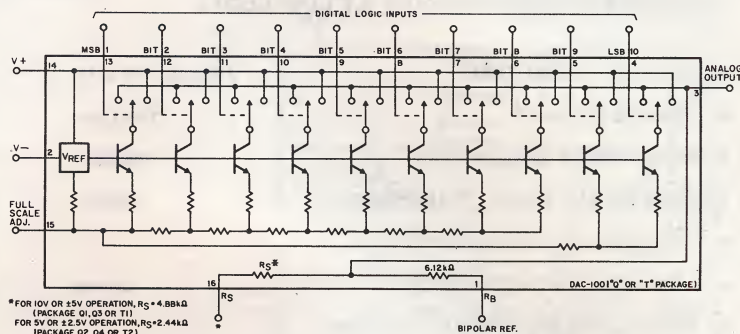
Model	Temp. Range (°C)	Input Coding	Max Chord Error (Steps)	Max Full Scale Tolerance (Steps) [†]	Max Full Scale Drift Over Temp Range (Steps) [†]
DAC-76BX	-55/+125	7 Bits + Sign	$\pm 1/2$	$\pm 1/2$	$\pm 1/4$
DAC-76X	-55/+125	7 Bits + Sign	± 1	± 1	$\pm 1/2$
DAC-76EX	0/+70	7 Bits + Sign	$\pm 1/2$	$\pm 1/2$	$\pm 1/4$
DAC-76CX	0/+70	7 Bits + Sign	± 1	± 1	$\pm 1/2$

[†]In a companding D/A Converter, the term LSB is not used, since the step size is different within each chord. See data sheet for more details.

DAC-100 — 8 & 10 BIT COMPLETE CURRENT-OUTPUT DAC

INDUSTRY'S BEST SELLER — WIDE CHOICE OF SPECIFICATIONS

- INTERNAL REFERENCE TEMPCOS TO 15PPM/°C
- NON LINEARITIES TO 0.05% MAX OVER TEMP RANGE
- FAST SETTLING. 225 nsec (8 BITS) 375 nsec (10 BITS)
- COMPACT. 16 PIN DIP OR 24 PIN FLAT PACK
- -55°/+125°C UNITS SCREENED TO MIL-STD-883A LEVEL B
- LOW COST "T" SERIES MODELS FOR TOP VALUE
- ±6V TO ±18V SUPPLIES 80mW @ ±6V



ORDERING INFORMATION

Model	Temp Range/Package Option Suffix				Max Nonlinearity Over Temp (%)	Max Full Scale Tempco (ppm/°C)	Max Settling Time To Nonlinearity Spec (nsec)
	MIL-STD-883 Level B -55°/+125°C	-25°/+85°C	0°/+70°C	Hermetic			
DAC-100AA	—	Q7, Q8, N9	Q1, Q2	—	±0.05	15	375
DAC-100AB	Q5, Q6	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.05	60	375
DAC-100AC	—	Q7, Q8, N9	Q1, Q2	—	±0.05	30	375
DAC-100BA	—	Q7, Q8, N9	Q1, Q2	—	±0.1	15	300
DAC-100BB	Q5, Q6	Q7, Q8, N9	Q1, Q2	—	±0.1	30	300
DAC-100BC	Q5, Q6	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.1	60	300
DAC-100CC	Q5, Q6	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.2	60	225
DAC-100DD	—	Q7, Q8, N9	Q1, Q2	Q3, Q4	±0.3	120	200

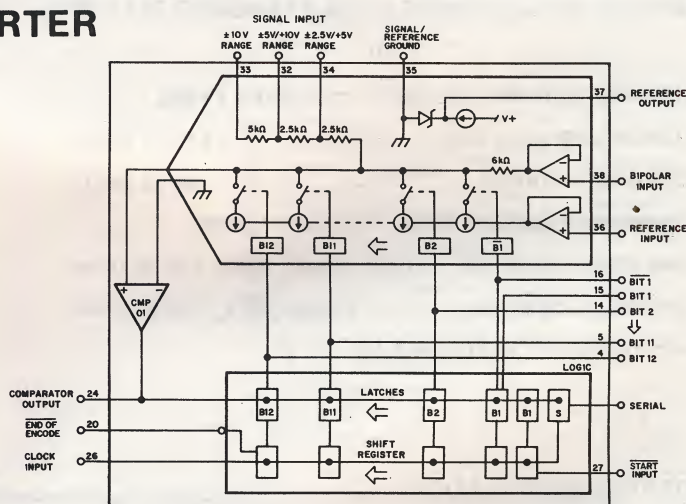
Note: Q1, Q3, Q5 & Q7 devices include internal feedback resistors for 10 Volt output swing operation; Q2, Q4, Q6 & Q8 devices are configured for 5 Volt output swing; N9 devices incorporate both 10V and 5V output swing capability.

Q: 16 pin Hermetic DIP; N: 24 pin Hermetic Flatpack.

AD-02 — HIGH SPEED A/D CONVERTER

COMPLETE A/D IN A 40 PIN DIP

- GUARANTEED SPECS -55° TO +125°C AND 0° TO +70°C
- FAST 6 BITS IN 6μsec, 8 BITS IN 8μsec
- PIN-SELECTABLE RANGES ±10V, ±5V, ±2.5V
- TEMPCO OPTIONS: 60 PPM/°C AND 120 PPM/°C
- ±15V, +5V SUPPLIES 500mW PD
- PARALLEL AND SERIAL DIGITAL OUTPUTS
- MIL-STD-883A PROCESSING AVAILABLE
- .625" X 2.000" 40 PIN DIP PACKAGE



ORDERING INFORMATION

Model	Temp Range (°C)	Max Nonlinearity Over Full Temp (%)	Max Full Scale Tempco (ppm/°C)	Max Zero Scale Tempco (ppm/°C)	Resolution (Bits)
AD-02AW	-55/+125	±0.2	60	10	12
AD-02W	-55/+125	±0.2	120	10	12
AD-02EW	0/+70	±0.2	60	10	12
AD-02CW	0/+70	±0.2	120	10	12



OP-01 — LOW COST HIGH SPEED OP AMP

HIGH SPEED PERFORMANCE AT LOW COST!

- FAST SETTLING TIME 700 nsec TO 0.1%
- HIGH SLEW RATE 18V/ μ sec
- WIDE POWER BANDWIDTH 250kHz
- WIDE SMALL SIGNAL BANDWIDTH 2.5MHz
- INTERNALLY COMPENSATED
- LOW POWER CONSUMPTION 40mW
- EXCELLENT D.C. SPECIFICATIONS

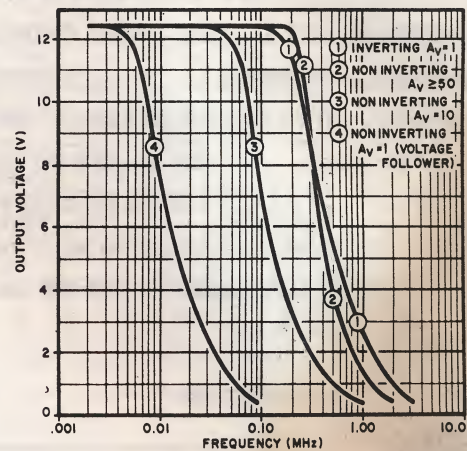
ORDERING INFORMATION

Model [†]	Temp Range (°C)	Max Settling Time 0.1%, 5V (μ s)	Max Vos (mV)	Max Ios (nA)	Max IB (nA)	Min Gain ($\times 10^3$)	Max Pd (mW)
OP-01	-55/+125	1.0	0.7	2.0	30	50	60
OP-01F	-55/+125	1.0	2.0	5.0	50	50	90
OP-01G	-55/+125	1.0	5.0	20	100	25	90
OP-01H	0/+70	1.0	0.7	2.0	30	50	60
OP-01E	0/+70	1.0	2.0	5.0	50	50	90
OP-01C	0/+70	1.0	5.0	20	100	25	90

[†]Packages:

8 Pin TO-99: add suffix J; 14 Pin DIP: add suffix Y.

LARGE SIGNAL OUTPUT SWING
VS FREQUENCY

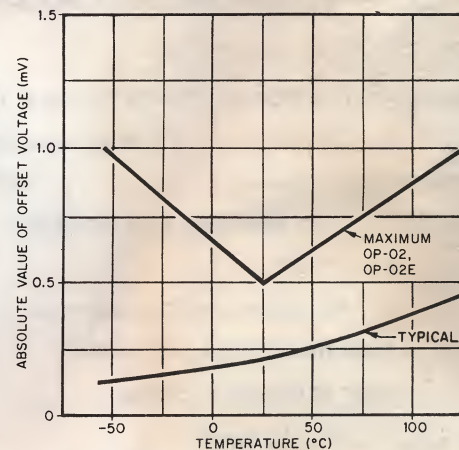


OP-02 — HIGH PERFORMANCE GENERAL PURPOSE OP AMP

DRAMATIC IMPROVEMENT OVER STANDARD 741 TYPES!

- LOW COST ELIMINATES COSTLY SELECTED TYPES
- LOW OFFSET VOLTAGE 0.5 mV (MAX)
- LOW BIAS CURRENT 30 nA (MAX)
- COMPLETE FREEDOM FROM "POPCORN" NOISE
- LOW NOISE VOLTAGE 25 nV/ $\sqrt{\text{Hz}}$ $f_0 = 10$ Hz (TYP)
- LOW NOISE CURRENT 1.4 pA/ $\sqrt{\text{Hz}}$ $f_0 = 10$ Hz (TYP)
- PIN-FOR-PIN 741 REPLACEMENT

OFFSET VOLTAGE VS. TEMPERATURE



ORDERING INFORMATION

Model ^{††}	Temp Range (°C)	Max Vos (mV)	Max TC Vos (μ V/°C)	Max Ios (nA)	Max IB (nA)	Min CMRR (dB)	Min PSRR (dB)	Min Gain ($\times 1000$)
OP-02A	-55/+125	0.5	8.0	2.0	30	90	90	100
OP-02	-55/+125	2.0	10.0	5.0	50	90	90	50
OP-02E	0/+70	0.5	8.0	2.0	30	90	90	100
OP-02C	0/+70	2.0	10.0	5.0	50	90	90	50

^{††}Packages

8 Pin TO-99: add suffix J; 14 Pin DIP: add suffix Y.

OP-05 — LOW NOISE, LOW DRIFT OP AMP

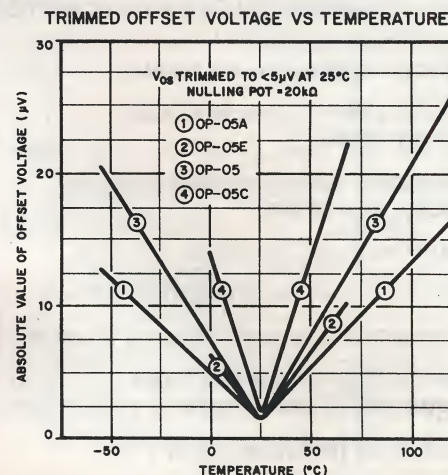
MAXIMUM PERFORMANCE AT LOW COST

- NULLED TC_{VOS} TO 0.5 μ V/ $^{\circ}$ C MAX
- NOISE VOLTAGE TO 0.6 μ V p-p MAX (0.1Hz TO 10Hz)
- NOISE CURRENT TO 30 pA p-p MAX (0.1Hz TO 10 Hz)
- ULTRA STABLE vs TIME 0.2 μ V/MONTH
- LOW BIAS CURRENT 2nA MAX
- INPUT RESISTANCE 30MEG Ω MIN
- HIGH COMMON MODE REJECTION 114dB MIN
- HIGH POWER SUPPLY REJECTION 110dB MIN

ORDERING INFORMATION

Model [†]	Temp. Range ($^{\circ}$ C)	Max V_{os} @ 25 $^{\circ}$ C (mV)	Max TC _{V_{os}} (Null'd) (μ V/ $^{\circ}$ C)	Max. Noise Voltage 0.1Hz to 10Hz (μ Vp-p)	Max I_B (nA)	Min CMRR (dB)	Max Noise Voltage @ 10Hz (nV/ \sqrt{Hz})
OP-05A	-55/+125	0.15	0.5	0.6	\pm 2.0	114	18.0
OP-05	-55/+125	0.5	1.0	0.6	\pm 3.0	114	18.0
OP-05E	0/+70	0.5	0.6	0.6	\pm 4.0	110	18.0
OP-05C	0/+70	1.3	1.5	0.65	\pm 7.0	100	20.0

[†]8 Pin TO-99 Package: add suffix J; 14 Pin Hermetic DIP: add suffix Y; 10 Pin Flatpack: add suffix L.



OP-07 — ULTRA-LOW OFFSET VOLTAGE OP AMP

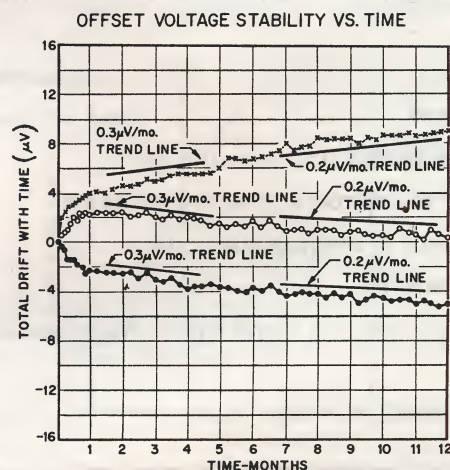
CHOPPER PERFORMANCE AT BIPOLAR PRICES!

- NO CHOPPERS OR CHOPPER NOISE
- NOISE VOLTAGE 0.6 μ Vp-p MAX (0.1Hz TO 10 Hz)
- ULTRA-LOW V_{os} 10 μ V.
- ULTRA STABLE vs TIME 0.2 μ V/MONTH
- ELIMINATES NEED FOR ADJUSTMENT POTENTIOMETERS
- SINGLE CHIP MONOLITHIC CONSTRUCTION
- NO EXTERNAL COMPONENTS REQUIRED
- FITS 725, 108A/308A, 741 SOCKETS

ORDERING INFORMATION

Model*	Temp. Range ($^{\circ}$ C)	Max V_{os} @ 25 $^{\circ}$ C (μ V)	Max V_{os} Over Temp. (μ V)	Max TC _{V_{os}} (μ V/ $^{\circ}$ C)	Max Noise Voltage 0.1 Hz to 10 Hz (μ Vp-p)	Max I_B (nA)	Min CMRR (dB)
OP-07A	-55/+125	25	60	0.6	0.6	\pm 2.0	110
OP-07	-55/+125	75	200	1.3	0.6	\pm 3.0	110
OP-07E	0/+70	75	150	1.3	0.6	\pm 4.0	106
OP-07C	0/+70	150	250	1.8	0.65	\pm 7.0	100

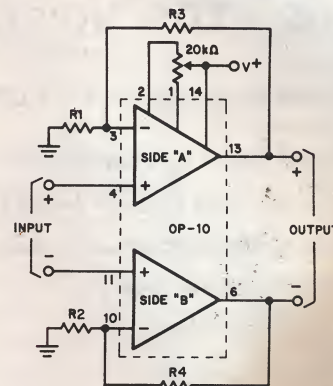
*8 Pin TO-99 Package: add suffix J; 14 Pin Hermetic DIP: add suffix Y.



OP-10 — DUAL MATCHED INSTRUMENT OP AMPS

DUAL OP AMPS WITH FANTASTIC MATCHING!

- EXCEPTIONAL ΔV_{os} MATCHING 0.18 mV MAX
- EXCELLENT $TC\Delta V_{os}$ TRACKING
OVER TEMP. 0.80 $\mu V/^{\circ}C$ MAX
- MATCHED CMRR FOR BEST COMMON
MODE REJECTION 114 dB MIN
- MATCHED I_{os+} , I_{os-} , PSRR
- PERFECT FOR INSTRUMENTATION AMPLIFIERS
- INDIVIDUAL DEVICES SIMILAR TO OP-05 TYPES
- SAVES COST AND SPACE OVER
INDIVIDUAL AMPLIFIERS 14 PIN DIP



HIGH INPUT IMPEDANCE DIFFERENTIAL-IN
DIFFERENTIAL-OUT AMPLIFIER

ORDERING INFORMATION

Model*	Temp Range ($^{\circ}C$)	Max ΔV_{os} (mV)	Max $TC\Delta V_{osn}$ (Nulls) ($\mu V/^{\circ}C$)	Max ΔI_{os+} (nA)	Min $\Delta CMRR$ (dB)	Max V_{os} (mV)	Max I_B (nA)
OP-10AY	-55/+125	0.18	0.8	2.8	114	0.5	± 3.0
OP-10Y	-55/+125	0.5	1.2	4.5	106	0.5	± 3.0
OP-10EY	0/+70	0.5	0.9	4.5	106	0.5	± 4.0
OP-10CY	0/+70	0.3 [†]	0.6 [†]	1.8 [†]	114 [†]	1.3	± 7.0

*Y Suffix = 14 pin DIP package

[†]Typical

CMP-01/CMP-02 — FAST PRECISION COMPARATORS

MOST ACCURATE VOLTAGE COMPARATORS AVAILABLE!

- CMP-01. 90nsec RESPONSE TIME
- CMP-02. 50nA MAX BIAS CURRENT
- LOW OFFSET VOLTAGE AND DRIFT
- $\pm 5V$ TO $\pm 18V$ OR SINGLE $+5V$ OPERATION
- DRIVES TTL WITHOUT PULL-UP
- HIGH GAIN
- IDEAL FOR A/D CONVERTERS, PRECISION APPLICATIONS

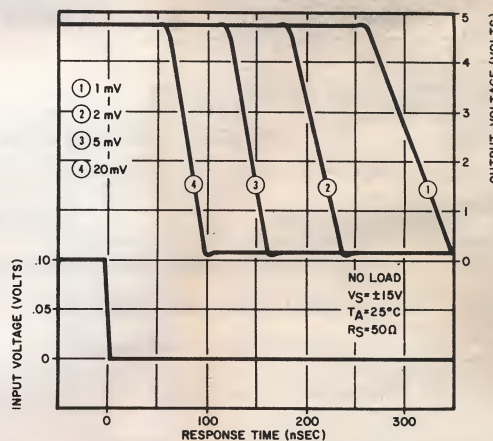
ORDERING INFORMATION

Model*	Range ($^{\circ}C$)	Rise Time (t_r) 5 mV Over- drive (ns)	Max I_B (nA)	Max V_{os} (mV)	TCV_{osn} ($\mu V/^{\circ}C$)	Max I_{os} (nA)	Min Gain (x 1000)
CMP-01	-55/+125	90	600	0.8	1.0	25	200
CMP-01E	0/+70	90	600	0.8	1.0	25	200
CMP-01C	0/+70	90	900	2.8	1.2	80	100
CMP-02	-55/+125	160	50	0.8	1.0	3.0	200
CMP-02E	0/+70	160	50	0.8	1.0	3.0	200
CMP-02C	0/+70	160	100	2.8	1.2	15	100

*Packages:

8 Pin TO-99: add suffix J; 14 Pin DIP: add suffix "Y".

RESPONSE TIME FOR 100mV STEP AND
VARIOUS INPUT OVERDRIVES

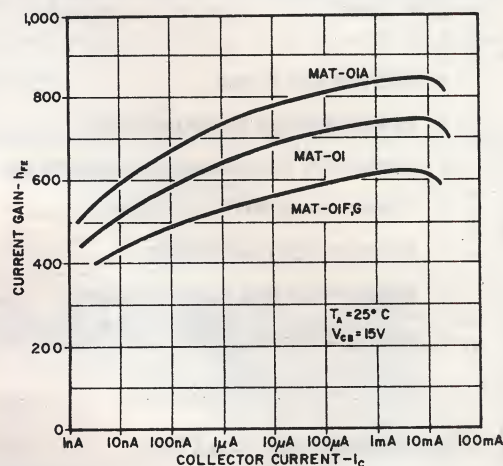


MAT-01 — ULTRA MATCHED DUAL TRANSISTORS

INDUSTRY'S TIGHTEST MATCHING SPECIFICATIONS!

- TIGHT LOG CONFORMANCE
- TIGHT V_{os} (V_{be} MATCH) 100 μ V MAX
- LOW TCV_{os} 0.5 μ V/ $^{\circ}$ C MAX
- TIGHT h_{FE} MATCH 3.0% MAX
- HIGH h_{FE} 500 MIN
- HIGH h_{FE} AT LOW I_c 590 @ $I_c = 10$ nA
- VERY LOW NOISE 0.4 μ Vp-p MAX, 0.1 TO 10Hz
- REPLACES MOST DUAL TRANSISTORS WITH BETTER PERFORMANCE

CURRENT GAIN VS. COLLECTOR CURRENT



ORDERING INFORMATION

Model*	Temp Range ($^{\circ}$ C)	Min BV_{CEO} (V)	Max V_{os} (μ V)	Max TCV_{os} (μ V/ $^{\circ}$ C)	Max h_{FE} Match (%)	Min h_{FE} @ 10 μ A	Typ h_{FE} @ 10nA
MAT-01AH	-55/+125	45	100	0.5	3.0	500	590
MAT-01GH	-55/+125	45	500	1.8	8.0	250	430
MAT-01H	-55/+125	60	100	0.5	2.7	330	520
MAT-01FH	-55/+125	60	500	1.8	8.0	250	430

*H Suffix: 6 Pin TO-99 Type Package.

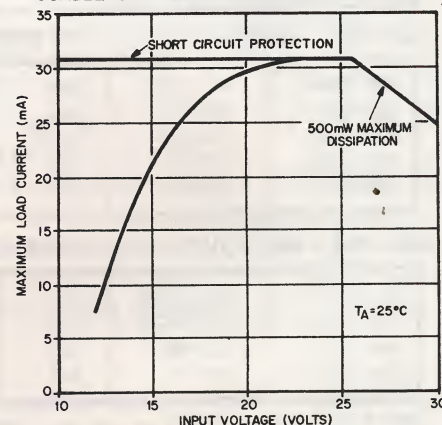
REF-01 — PRECISION VOLTAGE REFERENCE

ADJUSTABLE 10 VOLT OUTPUT

- EXCELLENT TEMPERATURE STABILITY 3 PPM/ $^{\circ}$ C
- LOW NOISE 20 μ V P-P (0.1 Hz TO 10 Hz)
- LOW POWER 15 mW
- WIDE INPUT VOLTAGE RANGE 12V TO 40V
- 0 $^{\circ}$ TO +70 $^{\circ}$ C AND -55 $^{\circ}$ TO +125 $^{\circ}$ C MODELS
- TYPICAL TURN-ON TIME TO 0.1%5 μ sec
- LOW COST
- \pm 3% ADJUSTMENT RANGE

ORDERING INFORMATION

USABLE LOAD CURRENT VS INPUT VOLTAGE



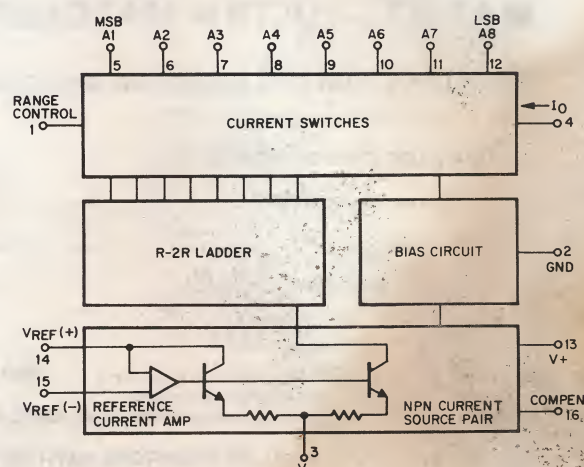
Model†	Temp. Range ($^{\circ}$ C)	Max Full Temp Output Change (%)	Min Output Adjust Range (%)	Max Noise 0.1Hz to 10Hz μ Vp-p	Min Input Voltage Range (V)	Max Line Regulation (ppm/V)	Max Load Regulation (ppm/mA)
REF-01AJ	-55/+125	0.15	\pm 3.0	30	+12 TO +40	100	80
REF-01J	-55/+125	0.45	\pm 3.0	30	+12 TO +40	100	100
REF-01EJ	0/+70	0.06	\pm 3.0	30	+12 TO +40	100	80
REF-01HJ	0/+70	0.17	\pm 3.0	30	+12 TO +40	100	100
REF-01CJ	0/+70	0.45	\pm 2.7	35	+12 TO +30	150	150

†J Suffix: 8 pin TO-99 package.

SSS1508A/1408A - 8 BIT MULTIPLYING D/A CONVERTER

IMPROVED DIRECT REPLACEMENT FOR MC1508/MC1408

- FASTER SETTLING 250 nsec
- LOWER POWER CONSUMPTION 157 mW
- LINEARITY GUARANTEED OVER TEMP RANGE
- COMPATIBLE WITH TTL, CMOS LOGIC
- OUTPUT VOLTAGE SWING +0.5V TO -5.0V
- HIGH SPEED MULTIPLYING INPUT 4.0 mA/μsec
- NO ADDITIONAL COST



SSS1408A/1508A
BLOCK DIAGRAM AND PIN CONNECTIONS

ORDERING INFORMATION

Precision Monolithics Part Number	Motorola Part Number	Temp Range (°C)	Relative Accuracy (%)	Package
SSS1508A-8Q	MC1508L-8	-55/+125	±0.19	All SSS1508A/1408A devices are packaged in hermetic 16 pin DIP
SSS1408A-8Q	MC1408L-8	0/+75	±0.19	
SSS1408A-7Q	MC1408L-7	0/+75	±0.39	
SSS1408A-6Q	MC1408L-6	0/+75	±0.78	

SUPERIOR SECOND SOURCE OPERATIONAL AMPLIFIERS

IMPROVED PERFORMANCE * DIRECT REPLACEMENT VERSIONS OF POPULAR INDUSTRY STANDARDS

Model	Temp Range (°C)	Max Vos (mV)	Max TC Vos (μV/°C)	Max Ios (nA)	Max I _B (nA)	Min CMRR (dB)	Min PSRR (dB)	Main Gain (x 1000)	Package Options
-------	-----------------	--------------	--------------------	--------------	-------------------------	---------------	---------------	--------------------	-----------------

SSS 725 – INSTRUMENTATION OPERATIONAL AMPLIFIER

SSS 725A	-55/+125	0.1	0.6	1.0	70	120	114	1000	J, L, Y
SSS 725	-55/+125	0.5	1.0	5.0	80	120	106	1000	J, L, Y
SSS 725B	-25/+85	0.75	1.0	5.0	80	110	106	1000	J, L, Y
SSS 725E	0/+70	0.5	0.6	5.0	80	120	106	1000	J, Y
SSS 725C	0/+70	1.3	1.5	13.0	110	100	100	500	J, Y

SSS 741 – IMPROVED PERFORMANCE OPERATIONAL AMPLIFIER

SSS 741	-55/+125	2.0	—	5.0	50	80	80	100	J, Y
SSS 741G	-55/+125	5.0	—	25	100	70	77	50	J, Y
SSS 741B	-25/+85	3.0	—	5.0	50	80	80	50	J, Y
SSS 741C	0/+70	6.0	—	25	100	70	77	20	J, Y

SSS 747 – DUAL SSS 741 OPERATIONAL AMPLIFIER

SSS 747	-55/+125	2.0	—	5.0	50	80	80	100	K, M, Y
SSS 747G	-55/+125	5.0	—	20	100	70	77	50	K, M, Y
SSS 747B	-25/+85	3.0	—	5.0	50	80	80	50	K, M, Y
SSS 747C	0/+70	5.0	—	20	100	70	77	50	K, Y

SSS 1558/1458 – DUAL SSS 741 OPERATIONAL AMPLIFIER

SSS 1558	-55/+125	5.0	—	20	100	70	77	50	J
SSS 1458	0/+70	5.0	—	20	100	70	77	50	J

*Exact replacements also available. Request "PM" Data Sheets.

Package suffixes J: 8 Pin TO 99; K: 10 Pin TO 100; L: 10 Pin Flatpack; M: 14 Pin Flatpack; Y: 14 Pin Hermetic DIP.



GENERAL ORDERING INFORMATION

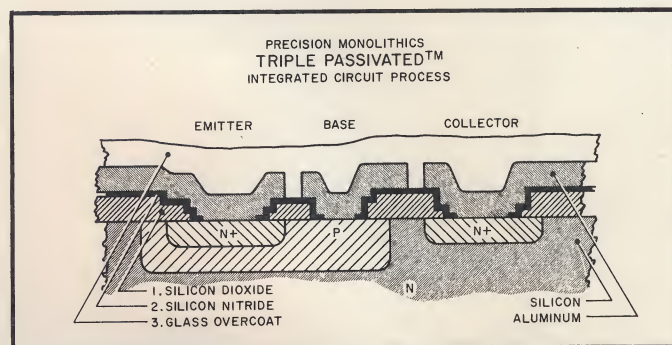
HIGH YIELD MONOLITHIC CHIPS

SAVE MONEY THROUGH INCREASED YIELDS!

- Highest Yields 25°C Parameters Guaranteed
- Highest Performance Tight specifications
- Highest Reliability—Exclusive "Triple Passivation" Process
- Full Military Temperature Range Operation
- 100% Visually Inspected to MIL-STD-883A Method 2010.1B
- Tight Distributions Precision Process Control
- Carefully Packaged No Loss During Shipment
- Excellent Die Attach Thick Gold or Standard Backing

The superior performance of Precision Monolithics products are now available to the hybrid microcircuit designer. All chips are 100% electrically tested for all guaranteed DC parameters at 25°C and are 100% visually inspected to MIL-STD-883A Method 2010.1 Condition B. Each chip is protected with our exclusive "Triple Passivation" process

incorporating an advanced silicon nitride ion barrier plus a thick glass coating over the metalization. Chips are packaged in 100-cavity, waffle-pack carriers with an anti-static shield and cushioning strip placed over the active surface to assure extra protection during shipment. Precision Monolithics chips provide the highest performance available coupled with the lowest overall finished costs.



MIL-STD-883A PROCESSING

Dedicated to quality and reliability, PMI has incorporated processing and control techniques to assure product conformance to the requirements of MIL-STD-883A and MIL-M-38510A. Proof of conformance is provided by continuous Q.A. sampling. Complete process documentation and a well-equipped failure analysis lab, utilizing the latest in scanning

electron microscope technology, provide further controls. With this organization and dedication, PMI has provided devices for the highest reliability military and aerospace programs and now can offer off-the-shelf MIL-STD-883A Level B processed parts.

ORDERING INFORMATION

To order any PMI product, choose the model, grade, and package that meets your requirements; for example:

DAC-08AZ = 8 bit multiplying DAC-08, A grade (−55° to +125°C), 16 pin DIP package.

OP-02EJ = OP-02, E grade (0 to +70°C), TO-99 package.

Military temperature range models with standard MIL-STD-883A class B screening may also be ordered by inserting "883" between the model number and grade, i.e.:

DAC08-883-AZ = DAC-08AZ per MIL-STD-883A Level B
OP02-883-AJ = OP-02AJ per MIL-STD-883A Level B.

Consult your full line catalog, price list, or call the representative, distributor or direct PMI sales office nearest you for complete model and ordering information.

PMI REGIONAL SALES OFFICES

EAST

3375 Park Avenue
Wantagh, NY 11793
(516) 785-3331
TWX 510-224-6830

CENTRAL

605 E. Algonquin Road
Suite 250G
Arlington Heights, IL 60005
(312) 437-6697
TWX 910-222-1808

SOUTHWEST

1200 Quail Street — Ste. 215
Newport Beach, CA 92660
(714) 752-1760
TWX 910-595-1981

FACTORY

1500 Space Park Drive
Santa Clara, CA 95050
(408) 246-9222
TWX 910-338-0528



Precision Monolithics, Inc.

1500 Space Park Drive

Santa Clara, CA 95050

(408) 246-9222

TWX 910-338-0528, Cable MONO

PRECISION MONOLITHICS REPRESENTATIVES

Alabama	(205) 539-4411	Nevada	(415) 965-9180
Alaska	(714) 752-1760	New Hampshire	(617) 890-0011
Arizona	(602) 967-8709	New Jersey, North	(516) 433-5330
Arkansas	(214) 234-6334	New Jersey, South	(609) 966-4070
California, North	(415) 965-9180	New Mexico	(505) 265-5655
California, South	(714) 752-1760	New York, New York City	(516) 433-5330
Colorado	(303) 759-0809	New York, Upstate	(716) 464-8636
Connecticut	(203) 269-7964	North Carolina	(919) 781-9426
Delaware	(301) 944-8262	North Dakota	(612) 571-0000
Dist. of Columbia	(301) 944-8262	Ohio, North	(216) 461-8333
Florida, Clearwater	(813) 441-4702	Ohio, South	(513) 293-3145
Florida, Ft. Lauderdale	(305) 771-6501	Oklahoma	(214) 234-6334
Florida, Miami	(305) 944-5031	Oregon	(503) 646-3004
Georgia	(404) 457-4069	Pennsylvania, West	(216) 461-8333
Hawaii	(714) 752-1760	Pennsylvania, East	(215) 644-3477
Idaho	(303) 759-0809	Rhode Island	(617) 890-0011
Illinois	(312) 394-4900	South Carolina	(919) 781-9426
Indiana	(317) 783-7630	South Dakota	(612) 571-0000
Iowa	(319) 363-7495	Tennessee	(205) 539-4411
Kansas	(913) 782-1177	Texas, Houston	(713) 772-0730
Kentucky	(513) 293-3145	Texas, Dallas	(214) 234-6334
Louisiana	(214) 234-6334	Utah	(303) 759-0809
Maine	(617) 890-0011	Vermont	(617) 890-0011
Maryland	(301) 944-8262	Virginia	(703) 548-7818
Massachusetts	(617) 890-0011	Washington	(206) 624-9020
Michigan	(313) 557-1934	West Virginia	(216) 461-8333
Minnesota	(612) 571-0000	Wisconsin	(414) 259-9060
Mississippi	(205) 539-4411	Wyoming	(303) 759-0809
Missouri	(314) 731-5200	Canada, Ontario	(416) 625-1445
Montana	(303) 759-0809	Canada, Quebec	(514) 626-8324
Nebraska	(314) 731-5200		

AUTHORIZED DISTRIBUTOR LOCATIONS

ALABAMA , Huntsville Hallmark Electronics (205) 837-8700	MARYLAND , Baltimore Hallmark Electronics (301) 265-8500	OHIO , Dayton Pioneer/Dayton (513) 236-9900
ARIZONA , Phoenix Sterling Electronics (602) 258-4531	MARYLAND , Baltimore Whitney Distributors (301) 944-8080	OKLAHOMA , Tulsa Hallmark Electronics (918) 835-8458
CALIFORNIA , Chatsworth Westates Electronics (213) 341-4411	MASSACHUSETTS , Dedham Gerber Electronics (617) 329-2400	PENNSYLVANIA , Philadelphia Hallmark Electronics (215) 355-7300
CALIFORNIA , Costa Mesa Westates Electronics (714) 549-8401	MASSACHUSETTS , Lexington Harvey Electronics (617) 861-9200	PENNSYLVANIA , Pittsburgh Pioneer - Pittsburgh (412) 782-2300
CALIFORNIA , San Diego Intermark Electronics (714) 279-5200	MICHIGAN , Livonia Pioneer Michigan (313) 525-1800	TEXAS , Austin Hallmark Electronics (512) 837-2814
CALIFORNIA , Santa Ana Intermark Electronics (714) 540-1322	MINNESOTA , Minneapolis Hallmark Electronics (612) 884-9056	TEXAS , Dallas Hallmark Electronics (214) 231-5101
CALIFORNIA , Sunnyvale Intermark Electronics (408) 738-1111	MISSOURI , St. Louis Hallmark Electronics (314) 291-5350	TEXAS , Dallas Sterling Electronics (214) 357-9131
CALIFORNIA , Sunnyvale Westates Electronics (408) 733-8383	NEW JERSEY , Fairfield Harvey Electronics (201) 227-1262	TEXAS , Houston Hallmark Electronics (713) 781-6100
CONNECTICUT , Norwalk Harvey Electronics (203) 853-1515	NEW MEXICO , Albuquerque Century Electronics (505) 292-2700	TEXAS , Houston Sterling Electronics (713) 627-9800
COLORADO , Wheatridge Century Electronics (303) 424-1985	NEW YORK , Binghamton Harvey/Federal Electronics (607) 748-8211	UTAH , Salt Lake City Century Electronics (801) 487-8551
FLORIDA , Ft. Lauderdale Hallmark Electronics (305) 971-9280	NEW YORK , Hauppauge Hallmark Electronics (516) 273-0030	WASHINGTON , Seattle Intermark Electronics (206) 767-3160
FLORIDA , Orlando Hallmark Electronics (305) 855-4020	NEW YORK , Woodbury Harvey Electronics (516) 921-8700	WISCONSIN , West Allis Hallmark Electronics (414) 476-1270
ILLINOIS , Chicago Hallmark Electronics (312) 437-8800	NORTH CAROLINA , Raleigh Hallmark Electronics (919) 832-4465	CANADA , Montreal Cesco Electronics (514) 735-5511
INDIANA , Indianapolis Pioneer - Indianapolis (317) 849-7300	NORTH CAROLINA , Winston-Salem Kirkman Electronics (919) 722-9131	CANADA , Toronto Westburne Electronics (416) 787-2461
KANSAS , Lenexa Hallmark Electronics (913) 888-4747	OHIO , Cleveland Pioneer/Cleveland (216) 587-3600	CANADA , Vancouver Bowtek Electronics (604) 736-1141

